### **Silicon NPN Power Transistors**

# BD895/897/899/901

### **DESCRIPTION**

·With TO-220C package

www.datasheet4u.com Complement to type BD896/898/900/902

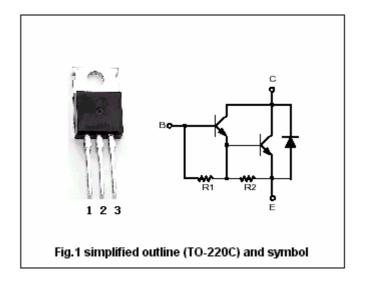
**·DARLINGTON** 

#### **APPLICATIONS**

·For use in output stages in audio equipment ,general amplifier,and analogue switching applications

#### **PINNING**

PIN	DESCRIPTION				
1	Base				
2	Collector;connected to mounting base				
3	Emitter				



### Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT	
V <sub>CBO</sub>	Collector-base voltage	BD895		45		
		BD897	Open emitter	60	V	
		BD899		80		
		BD901		100	]	
	Collector-emitter voltage	BD895	Open base	45	V	
$V_{\sf CEO}$		BD897		60		
		BD899		80		
		BD901		100	]	
$V_{EBO}$	Emitter-base voltage		Open collector	5	V	
I <sub>C</sub>	Collector current-DC			8	Α	
lΒ	Base current			300	mA	
P <sub>T</sub>	Total power dissipation		T <sub>C</sub> =25□	70	W	
			T <sub>a</sub> =25□	2		
Tj	Junction temperature			150		
T <sub>stg</sub>	Storage temperature			-65~150		

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### **CHARACTERISTICS**

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	BD895	- I <sub>C</sub> =100mA, I <sub>B</sub> =0	45			V
		BD897		60			
		BD899		80			
		BD901		100			
$V_{\text{CEsat}}$	Collector-emitter saturation voltage		I <sub>C</sub> =3A ,I <sub>B</sub> =12mA			2.5	٧
$V_{BE}$	Base-emitter on voltage		I <sub>C</sub> =3A ; V <sub>CE</sub> =3V			2.5	V
		BD895	V <sub>CB</sub> =45V, I <sub>E</sub> =0 T <sub>C</sub> =100□			0.2 2.0	
I <sub>CBO</sub> Coll		BD897	V <sub>CB</sub> =60V, I <sub>E</sub> =0 T <sub>C</sub> =100□			0.2 2.0	A
	Collector cut-off current	BD899	V <sub>CB</sub> =80V, I <sub>E</sub> =0 T <sub>C</sub> =100□			0.2 2.0	- mA
		BD901	V <sub>CB</sub> =100V, I <sub>E</sub> =0 T <sub>C</sub> =100□			0.2 2.0	
		BD895	V <sub>CE</sub> =30V, I <sub>B</sub> =0				
I <sub>CEO</sub>	Collector cut-off current	BD897	V <sub>CE</sub> =30V, I <sub>B</sub> =0			0.5	mA
		BD899	V <sub>CE</sub> =40V, I <sub>B</sub> =0				
		BD901	V <sub>CE</sub> =50V, I <sub>B</sub> =0				
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =5V; I <sub>C</sub> =0			2	mA
h <sub>FE</sub>	DC current gain		I <sub>C</sub> =3A ; V <sub>CE</sub> =3V	750			
$V_{\text{EC}}$	Diode forward voltage		I <sub>E</sub> =8A			3.5	V
t <sub>on</sub>	Turn-on time	I <sub>C</sub> =3A ; I <sub>B1</sub> =-I <sub>B2</sub> =12mA			1		μs
t <sub>off</sub>	Turn-off time		$V_{BE}$ =-3.5V;R <sub>L</sub> =10Ω;t <sub>p</sub> =20µs		5		μs

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal resistance junction to case	1.79	□/W

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### **PACKAGE OUTLINE**

